

## THERMOMETER IN HOUSE VERIFICATION PROCEDURE #37

Revised April 22, 2002

Equipment Checked:     **THERMOMETERS (AASHTO T 88, T 100)**

Purpose:

This method provides instructions for calibration of testing thermometers to check for accuracy. Test thermometers are calibrated against NIST certified thermometers.

Inspection Equipment Required:

1. Thermometer H-2610.12C, -20EC to 102EC., NIST certified.
2. Thermometer H-2610.7C, -2EC to 300EC., NIST certified.

**WATER BATH PROCEDURE:** Place certified calibrated thermometer and thermometer to be calibrated in a water bath. Heat bath to desired range. Take readings from calibrated thermometer and thermometer to be calibrated at selected points and compare the readings. If the readings do not match add or subtract the difference, whichever is appropriate, to the future readings of the thermometer being calibrated.

**OVEN PROCEDURE:** Place certified calibrated thermometer and thermometer to be calibrated in a beaker of sand. Heat the beaker of sand with thermometers in an oven to desired range. Take readings from certified thermometer and thermometer to be calibrated at selected points and compare the readings. If the readings do not match add or subtract the difference, whichever is appropriate, to the future readings of the thermometer being calibrated.

## EQUIPMENT CALIBRATION RECORD

### Calibration Procedure No. 37 Thermometers (AASHTO T 88 & T 100)

<b>Date:</b>	<b>Calibrated by:</b>
<b>Previous Calibration Date:</b>	<b>Next Due:</b>
<b>Frequency:</b> Independent Assurance 12 months - Acceptance Testing - Prior to use on project	
<b>Calibration Equipment:</b>	<b>Serial Number:</b>
Certified Thermometer	

If + add corrections to thermometer reading to get true temperature.

If - subtract correction from thermometer reading to get true temperature.

Laboratory	Thermometer Type & SN	Test Temperature	True temp.	Correction	Remarks

If + add corrections to thermometer reading to get true temperature.

If - subtract correction from thermometer reading to get true temperature.

[illegible]